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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,665	05/30/2001	Takaharu Kondo	35.C15382	5130

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EXAMINER
MUTSCHLER, BRIAN L

ART UNIT	PAPER NUMBER
1753	

DATE MAILED: 08/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No. 09/866,665	Applicant(s) KONDO ET AL.
	Examiner Brian L. Mutschler	Art Unit 1753

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 28 July 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☐ The proposed amendment(s) will not be entered because:

   (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ they raise the issue of new matter (see Note below);

   (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *See Continuation Sheet*.

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☒ For purposes of Appeal, the proposed amendment(s) a)☐ will not be entered or b)☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: _____.

   Claim(s) rejected: *1-15*.

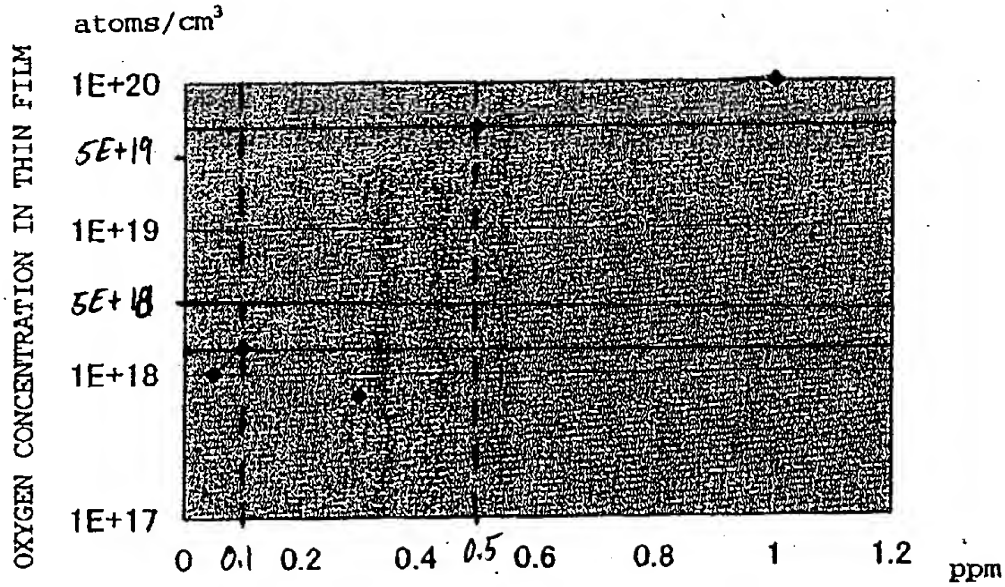
   Claim(s) withdrawn from consideration: _____.

8. ☐ The proposed drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10. ☐ Other: _____

Continuation of 5. does NOT place the application in condition for allowance because: Applicant's arguments are not persuasive because they fail to show how the claimed method differs from the method taught by the prior art. Specifically, Applicant has argued that the combination of Matsuda et al. Yamazaki '264 and Yamzaki '794 "would fail to teach or suggest a process for forming a silicon-based thin film, wherein a material gas of silicon fluoride and hydrogen is used, and wherein the material gas contains an oxygen content of 0.1 to 0.5 ppm, based on the concentration of silicon atoms" (see pages 8-9 of Applicant's response). Material gases used in CVD processes contain trace amounts of oxygen which are difficult to remove (see Yamazaki '794 col. 8, lines 23-36). While Yamazaki '794 uses silane gas (SiH4), the same also holds true for silicon fluoride (SiF4). Yamazaki '794 teaches a method for reducing the amount of oxygen in the silicon film because Yamazaki found that high oxygen concentrations of 10^20 atoms/cm^3 will lower the photoelectric conversion efficiency, and the method of '794 is designed to reduce the concentration of oxygen to at most 5x10^18 atoms/cm^3 which provides a "far higher" photo-sensitivity (col. 3, line 19 to col. 4, line 8). Since the method of Yamazaki '794 teaches the use of the same method, plasma CVD, and produces the same product having the same oxygen concentration, the oxygen concentration contained within the material gas would also lie within the range of the instant claims. Evidence for this is provided in the graph presented by the Applicant, which shows the concentration of oxygen in the thin film as a function of the oxygen concentration within the material gas (see graph reprinted below). As can be seen in the markings added by the Examiner, the concentration of oxygen disclosed by Yamazaki '794, 5x10^18 atoms/cm^3, lies between the data points shown for ~0.1 ppm and ~0.5 ppm, the oxygen concentration in the material gas used by Yamazaki '794 would necessarily lie within the claimed range of 0.1-0.5 ppm oxygen in the material gas, assuming that the function describing relationship between the gas concentration and film concentration is a continuous function. Since the oxygen concentration in the material gas would lie within the claimed range, the instant claims are not distinguished over the prior art.



At least 1 value for 5E+18 (red line) atoms/cm³ must lie within the range of 0.1-0.5ppm (highlighted region).

8/7/2003

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